

C SERIES

Triple output

- Low noise
- Six-sided continuous shield
- Double fault protected
- Linear regulation
- High reliability
- Pi input filter



The C series consists of a family of triple output DC/DC converters that provide 10 watts of isolated, well regulated output power. Models are available with outputs of either $\pm 12V$ or $\pm 15V$ at 165 mA and 5V at 750 mA. The units offer better than 500VDC isolation and line and load regulation better than 1.0%. All models are encapsulated in 3.0 x 2.56 x 0.75 inches metal cases designed for optimum noise containment. EMI/RFI protection is provided by a six-sided continuous package shield

and transformer shielding. A Pi-type input filter is included to minimize reflected input ripple current. Fault protection features include short-term constant current limiting on all outputs, with long-term thermal shutdown and overvoltage protection on 5 volt outputs.

SPECIFICATION

ALL SPECIFICATIONS ARE TYPICAL AT NOMINAL INPUT, FULL LOAD AND 25°C UNLESS OTHERWISE STATED

OUTPUT SPECIFICATIONS		
Voltage accuracy	5V output Dual, + output	$\pm 4.0\%$, max. $\pm 1.0\%$, max.
Voltage balance	- Output	$\pm 1.0\%$, max.
Load regulation	5V output, FL-NL Dual output, FL-NL	$\pm 1\%$, max. $\pm 0.1\%$, max.
Line regulation	5V output, HL-LL Dual output, HL-LL	$\pm 1\%$, max. $\pm 0.1\%$, max.
Ripple and noise 20MHz BW	5V output Dual output	2mV rms, max. 40mV pk-pk, max. 1mV rms, max. 40mV pk-pk, max.
Temperature coefficient	5V output Dual output	$\pm 0.5\%/^{\circ}C$, max. $\pm 0.05\%/^{\circ}C$, max.
Voltage stability 24 hours	5V output Dual output	$\pm 0.2\%$, max. $\pm 0.05\%$, max.
Transient recovery time $\pm 0.5\%$ error band	FL-NL	250 μ sec., max.
Short circuit protection	Output to common	Continuous
Overvoltage protection 5V output	Internal clamp	6.8VDC set
INPUT SPECIFICATIONS		
Input voltage range	See table on facing page	
Input filter	Pi network	

GENERAL SPECIFICATIONS	
Efficiency	See table
Isolation voltage	500VDC, min.
Isolation resistance	10^9 ohms, min.
Switching frequency	20kHz
EMI/RFI	Six-sided continuous shield Transformer shield
ENVIRONMENTAL SPECIFICATIONS	
Operating temperature range	- 25°C to 71°C
Derating	None
Storage temperature range	- 40°C to 85°C
Case temp. rise above ambient	5°C/watt diss.
Overtemperature protection	Thermal shutdown Automatic restart
Cooling	Free-air convection

10 Watt DC/DC converters

INPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF	CASE	MODEL NUMBER
				NO LOAD	FULL LOAD			
5VDC	4.5 – 5.5	±12/5VDC	±165/750mA	500mA	3300mA	47	X	C05T12/165X
5VDC	4.5 – 5.5	±15/5VDC	±165/750mA	500mA	3300mA	50	X	C05T15/165X
12VDC	10.0 – 14.0	±12/5VDC	±165/750mA	85mA	1300mA	47	X	C12T12/165X
12VDC	10.0 – 14.0	±15/5VDC	±165/750mA	85mA	1350mA	50	X	C12T15/165X
24VDC	20.0 – 28.0	±12/5VDC	±165/750mA	35mA	640mA	50	X	C24T12/165X
24VDC	20.0 – 28.0	±12/5VDC	±165/750mA	35mA	670mA	54	X	C24T15/165X
28VDC	24.0 – 32.0	±12/5VDC	±165/750mA	35mA	550mA	50	X	C28T12/165X
28VDC	24.0 – 32.0	±12/5VDC	±165/750mA	35mA	570mA	54	X	C28T15/165X
48VDC	42.0 – 56.0	±12/5VDC	±165/750mA	25mA	315mA	51	X	C48T12/165X
48VDC	42.0 – 56.0	±12/5VDC	±165/750mA	25mA	335mA	54	X	C48T15/165X

Notes

- On 48VDC input models, the case is connected to + input (Pin 1).
- Dimensions are inches and (mm).

PIN CONNECTIONS	
PIN NUMBER	FUNCTION
1	+ Input
2	– Input
3	+ Auxiliary Output
4	Auxiliary Common
5	– Auxiliary Output
6	+5V
7	+5V Return

